

residence and age of mothers. The frequency of different forms of CHD were identified according to the outcomes including total birth, live birth and still birth.

Results: Totally, 638791 fetus and infants were monitored in our network from Jan 1, 2004 to Dec 31, 2012 and 6045 were diagnosed with CHD. The overall incidence of CHD was 9.46 per 1000 and it was significantly higher in still birth (34.03‰ vs 9.02‰ in live birth, $P=0.00$), infants died in 7 days after birth (40.03‰), male (8.05‰ vs 7.27‰ in female, $P=0.00$), urban residence (9.37‰ vs 8.79‰ in rural residence, $P=0.016$) and gravidas younger than 25 or older than 35. The incidence of CHD showed an uprising tendency from 2004 to 2012 and the regional distribution changed during this period. 126 (42.42%) in 297 cases diagnosed prenatally were therapeutic terminated. VSD, PDA and ASD were the most common CHD forms on the whole.

Conclusions: The CHD network study of Guangdong province is the first province-wide hospital-based study of CHD in China. The incidence of CHD and frequencies of different lesion forms in Guangdong province were comparable with other studies. There was an uprising incidence rate from 2004 to 2012 which mainly attributed the improvement of diagnostic techniques. The prenatal diagnosis rate was low, while the therapeutic termination of the pregnancy rate was high. Related risk factors for CHD need to be analyzed in the near future.

GW25-e2136

Hypertension in China: Time Trend on Its Prevalence, Awareness, Treatment, and Control, Between 2004 and 2010

Li Yichong, Wang Limin, Zhou Maigeng

National Center for Chronic and Non-communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention

Objectives: To describe trend in hypertension prevalence, awareness, treatment and control in China from 2004 to 2010.

Methods: The China Chronic Disease and Risk Factors Surveillance, a series of nationally representative surveys, included 172655 adults aged 18-69 years (32987 in 2004, 49116 in 2007, and 91484 in 2010) using stratified multistage probability sampling. All surveys were adjusted to the year 2010 China population with post-stratification.

Results: Hypertension prevalence rose from 19.8% (95% CI 18.2%-21.5%) in 2004 to 30.6% (95% CI 28.8%-32.3%) in 2010, and it increased significantly across age, sex, and urban/rural areas. Women consistently had higher hypertension prevalence than men in three surveys, and the sex difference was widening (2.2% in 2004 vs 4.9% in 2010, $P=0.027$). Awareness improved over time from 2004 (30.3%, 95% CI 27.9%-32.8%) to 2010 (34.1%, 95% CI 32.2%-35.9%), but control was getting worse from 8.5% (95% CI 7.2%-9.7%) in 2004 to 6.7% (95% CI 6.0%-7.4%) in 2010. Women had better awareness, treatment and control than did men in the three surveys, while urban residents had better than did their rural counterparts. Awareness discrepancy between both genders narrowed over time (11.1% in 2004 vs 6.4% in 2010, $P<0.01$), along with that between urban and rural areas (11.9% in 2004 vs 4.2% in 2010, $P<0.01$). Difference of hypertension control between genders became smaller (3.0% in 2004 vs 1.0% in 2010, $P=0.03$), but it did not change between urban and rural areas ($P=0.43$).

Conclusions: Hypertension prevalence increased rapidly from 2004 to 2010. Despite a slightly improved awareness, control is still unacceptably poor and appears to become worsening.

GW25-e3137

The prevalence of hypertension, obesity and diabetes in Xinjiang, China.

Liu Fen¹, Ma Yitong^{1,2}

¹Xinjiang Key Laboratory of Cardiovascular Disease Research, Urumqi, People's Republic of China, ²Department of Cardiology, First Affiliated Hospital of Xinjiang Medical University, Urumqi, People's Republic of China

Objectives: The prevalence of hypertension, obesity and diabetes hasn't been well studied in Xinjiang, China. The present epidemiological study was performed to determine the prevalence of hypertension, obesity and diabetes and to discuss the risk factors.

Methods: Our data came from the Cardiovascular Risk Survey (CRS) study designed to investigate the prevalence and risk factors for cardiovascular diseases in Xinjiang from October 2007 to March 2010. 14122 participants (5583 Hans, 4620 Uyghurs, and 3919 Kazaks) completed the survey and examination. Hypertension was defined as systolic or diastolic blood pressure or both $\geq 140/90$ mmHg measured on occasion or treatment for hypertension, obesity was defined as body mass index ≥ 25 kg/m², diabetes was defined by the American Diabetes Association 2009 criteria. The risk factors detected by multivariate logistic regression analysis.

Results: The prevalence of hypertension, obesity and diabetes of Xinjiang was 40.1% (men: 42.1% vs women: 38.4%), 26.9% (men: 27.8% vs women: 26.2%) and 6.1% (men: 7.1% vs women: 5.2%) respectively. the prevalence of hypertension, obesity and diabetes in men was significantly higher ($\chi^2=20.0$, $P=0.00$, $\chi^2=127.7$, $P=0.00$ and $\chi^2=20.6$, $P=0.00$) than that in women and was significantly different in the three ethnic groups. Independently, the prevalence of hypertension was 50.3%, 32.9% and 38.9% among Kazaks, Uyghurs and Han ($\chi^2=274.6$, $P=0.00$). The obesity was 35.47%, 29.1% and 19.1% ($\chi^2=340.9$, $P=0.00$), and diabetes was 3.5%, 6.0% and 8.0% ($\chi^2=78.4$, $P=0.00$). Based on multiple logistic regression analysis, the significant risk factors for hypertension and diabetes were age, overweight/obesity, hypertriglyceridemia, hypercholesterolemia and alcohol intake of over 30 g/day.

Conclusions: The considerably high prevalence of hypertension, overweight/obesity and diabetes among the minority population aged over 35 of Xinjiang. Age, increased body mass index, hypercholesterolemia and ≥ 30 g/d alcohol intake can be counted as risk factors for hypertension and diabetes.

GW25-e3211

Relationship between four blood pressure indexes and ischemic stroke in patients with uncontrolled hypertension

Zuo Huijuan, Lin Yun, Wang Jinwen, Deng Liquan, Su Jianglian

Beijing Institute of Heart, Lung & Blood Vessel Diseases, Beijing Anzhen Hospital affiliated to the Capital University of Medical Sciences

Objectives: Ischemic stroke is the leading cardiovascular event for hypertension patients in China. It was estimated, patients with hypertension were over 266 million, and the control rate was 6.1%. In a majority of uncontrolled hypertension, which predictor associated with risk of Ischemic Stroke? We analyzed the relationship between systolic blood pressure (SBP), diastolic blood pressure (DBP), pulse pressure (PP) and mean arterial pressure (MAP) and Ischemic stroke.

Methods: In this cross-sectional survey, subjects with hypertension aged above 35 years and beyond standard BP control were recruited from the general medicine clinic of Beijing Anzhen Hospital and its affiliated community health centers from March to December 2012. BP is measured twice with an interval of 5-10 minutes. The average of both measurements was recorded. Patients beyond standard BP control are those with SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg. Ischemic Stroke was suspected with symptoms of numbness, abnormal speech, transitional blindness, vertigo, nausea, deviated eyes and mouth, hemiplegia, dribbling, and etc. Patients are transferred to specialists, examined with brain CT or MRI, and diagnosed with ischemic stroke, transient ischemic attack (TIA), cerebral thrombosis or lacunar infarction.

Results: After adjustment for 7 additional covariates, high tertile and quartile PP patients and high quartile MAP patients were associated with higher risk of ischemic stroke compared with the patients with lowest quartile PP and MAP the Odds Ratio (OR) was 2.497 (1.329-4.693), 2.226 (1.141-4.543), and 1.708 (1.063-2.746) respectively. Compared with SBP <140 mmHg, SBP ≥ 150 mmHg showed an increased risk by 170% and 110%. No significant difference in stroke risk was found across categories of DBP. Four predictors were introduced to the multifactorial model, only SBP entered into the model. Compared with SBP <140 mmHg, relative risk of stroke is 1.386 (95% CI 0.670-2.866) for SBP between 140-149mmHg, 2.777 (95% CI 1.356-5.688) for SBP between 150-159mmHg, 2.116 (95% CI 1.038-4.314) for SBP ≥ 160 mmHg. Accuracy analysis found SBP shows the biggest area under ROC curves, which is 64.3%.

Conclusions: Conclusion SBP is associated with higher risk of ischemic stroke in patients with uncontrolled hypertension than other three blood pressure indexes. Doctors should focus on the decrease of SBP, and try to help patients with uncontrolled hypertension to decreased SBP under 150mmHg.

GW25-e3346

Prevalence and Risk Factors Associated with Prehypertension in Shunde District

Huang Yuli^{1,2}, Qiu Wenke², Hu Yunzhao², Xu Dingli¹

¹Nanfang Hospital, Southern Medical University, Guangzhou, PR China, ²The First People's Hospital of Shunde, Foshan, PR China

Objectives: In China, the incidence of hypertension is significantly higher in the northern than that in the southern area. Such regional factors may also affect the incidence of prehypertension. We performed a retrospective study in Shunde District, Guangdong Province, Southern China, using the community-based health check-up information, to explore the incidence and combined cardiovascular risk factors of prehypertension. e-ZH-CN;mso-bidi-language:AR-SA' >prehypertensive subgroups.

Methods: Community-based health check-up information was collected in the Health Management Center of the First People's Hospital of Shunde. Individuals were divided into hypertension (BP $\geq 140/90$ mmHg, or previous diagnosed as hypertension and now taking anti-hypertensive medicines); prehypertension, and optimal BP (BP $<120/80$ mmHg). Prevalence and risk factors of prehypertension were analyzed. Prehypertension was further divided into low range (BP 120-129/80-84 mmHg) and high range (BP 130-139/85-89 mmHg) subgroups. The cardiovascular risk factors in the subgroups were compared.

Results: (1) 5362 cases (aged ≥ 35 years) were initially reviewed and 651 of them were excluded due to missing data. Finally, 4711 cases (male 2674, female 2037) were analyzed. The proportion of optimal BP, prehypertension and hypertension were 39.1% (1842 cases), 38.6% (1819 cases) and 22.3% (1050 cases) respectively. The incidence of prehypertension was higher in male than in female (43.5% vs 32.2%, $P<0.001$). (2) The average age, proportion of male, overweight, impaired fasting glucose (IFG), dyslipidemia, hyperuricemia, levels of fasting plasma glucose (FPG), total cholesterol (TC), triglycerides (TG), body mass index (BMI) and serum uric acid (UA) were significantly higher in prehypertension group than that in optimal BP group (all $P<0.05$). (3) The proportion of male, overweight and IFG, levels of BMI and FPG were higher in low range prehypertension than that in optimal BP group (all $P<0.05$), but there were no significant difference in other cardiovascular risk factors (all $P>0.05$). The proportion of male, overweight, obesity, dyslipidemia, diabetes, IFG and hyperuricemia, levels of BMI, TC, low density lipoprotein-cholesterol, TG, FPG and UA were higher in high range